

INTERNATIONAL SEARCH REPORT

International application No. PCT/SE 03/01556
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A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H02M 7/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H02M, H02P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPI, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	SE 517427 C2 (ABB AB), 4 June 2002 (04.06.02), figure 1 --	1-31
A	US 5621634 A (SHINJI SATO), 15 April 1997 (15.04.97), see whole document --	1-31
A	EP 0533158 A2 (HITACHI, LTD.), 17 Sept 1992 (17.09.92), see whole document --	1-31

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reasons (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

12 December 2003

Date of mailing of the international search report

09-01-2004

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86Authorized officer
Antonio Farieta/MN
Telephone No. +46 8 782 25 00

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>Tae-Jin Kim et al The analysis of conduction and switching losses in multi-level inverter system Power Electronics Specialists Conference, 20c 2001 IEEE 32 nd Annual volume 3, 2001 INSPEC Accession Number 7138627 see chapter "IV-switching losses...."</p> <p>--</p>	1-31
A	<p>Marchesoni.M. High performance current control techniques for applications to multilevel high power voltage source inverters Power Electronics Specialists Conference, 1989 Record., 20th Annual IEEE INSPEC Accession Number: 3557101 see table I abstract; figure 1</p> <p>--</p> <p>-----</p>	1-31

INTERNATIONAL SEARCH REPORT
Information on patent family members

31/10/03

		International application No.
		PCT/SE 03/01556

Patent document cited in search report		Publication date	Patent family member(s)		Publication date	
SE	517427	C2	04/06/02	EP SE WO	1325550 A 0003657 A 0231956 A	09/07/03 12/04/02 18/04/02
US	5621634	A	15/04/97	JP KR DE EP SE	8289561 A 221810 B 69610000 D,T 0727870 A,B 0727870 T3	01/11/96 15/09/99 17/05/01 21/08/96
EP	0533158	A2	17/09/92	DE EP JP JP JP US US US JP JP ZA	69226141 D,T 0838855 A 2751707 B 5067459 U 5206449 A 5459655 A 5731970 A 5801936 A 5929519 A 2707883 B 5083947 A 9207163 A	03/12/98 29/04/98 18/05/98 07/09/93 13/08/93 17/10/95 24/03/98 01/09/98 27/07/99 04/02/98 02/04/93 22/03/93